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10/603,493	06/24/2003	Jeffrey Robert Perry	50019.222US01/PO5531	3527

23552 7590 03/13/2007	EXAMINER
MERCHANT & GOULD PC P.O. BOX 2903 MINNEAPOLIS, MN 55402-0903	KIK, PHALLAKA

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2825	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/13/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>22 December 2006</u>.

2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-22* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-22* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on <u>24 October 2005</u> is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

DETAILED ACTION

1.   This Office Action responds to amendment filed on 12/22/2006. Claims 1-22 are

pending, wherein claims 1,11-16,22 have been amended.

Specification

2.   As previously indicated, acknowledgement is made of the substituted

specification filed on 10/24/2005, which have been entered.

Drawings

3.   As previously indicated, the drawings were received on 10/24/2005. These

drawings are approved by the Examiner

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed
> or described as set forth in section 102 of this title, if the differences between the
> subject matter sought to be patented and the prior art are such that the subject
> matter as a whole would have been obvious at the time the invention was made
> to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was
> made.

5.   **Claims 1-7,9-22** are rejected under 35 U.S.C. 103(a) as being unpatentable over

Yen et al. ("A Web-Based, Collaborative, Computer-Aided Sequential Control Design

Tool", IEEE Control Systems Magazine, Vol. 23, No. 2, April 2003, pp. 14-19) in view of

Lin et al. (U.S. Patent No. 6,980,211) and **Jakatda et al.** (US Patent Application

Publication No. 2003/0163295).

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

As per **claims 1,16,22, Yen et al.** disclose the establishing connection between the client and the server is part of the Web-based software design tool as further described on page 15, column 2, paragraphs 1-2 (see also Fig. 1); the displaying/choosing/modifying/analyzing of the schematic on the client is described on page 16 and illustrated in Fig.3, which allows the user to select/choose and place the circuit components and their wires (i.e., wiring component) to the desire location on the schematic as well as allowing the user to modify and re-simulate the schematic (i.e., analyze the modified schematic); thus making the wire components and the electrical component movable within the schematic as desired by the user/designer. However, **Yen et al.** failed to specifically teach that each endpoint of the wire may be independently moved and further failed to teach specifically that the electrical and thermal simulation be performed on a computer that is different from the client. **Lin et al.** teach the use of endpoints or start points and their positions for defining interconnects or wirings, connecting the circuit component(s) in the schematic diagram

in order to allow the schematic diagram to be edited and properly displayed (see col. 1, lines 32-54). **Jakatdar et al.** teach both electrical and thermal simulations that can be performed on different computers over the computer network (i.e., on computer that is different from the client) (see paragraphs [0036] and [0045]). It would have been obvious to one of ordinary skilled in the art at the time of the invention to further incorporate the use of endpoints or start points and their positions as taught by **Lin et al.** into the method/system of **Yen et al.** because incorporation would allow the schematic diagram of **Yen et al.** to be properly edited and placed at the desired position. It would have been further obvious to one of ordinary skilled in the art at the time of the invention, to further adapt the method/system of **Yen et al.** in view of **Lin et al.** to perform the simulation (both electrical and thermal simulations) on different computers (i.e., on a computer that is different from the client) as further taught by **Jakatdar et al.** because such adaptation would further make better use of resources available on the computer network or internet as taught by **Jakatdar et al.** and as intended by **Yen et al.** (i.e., for greater collaboration) while still benefiting electrical and thermal simulations to ensure that the circuits perform their functions properly.

As per **claim 2**, all of the elements of claim 1 are discussed in the rejection of claim 1, from which the claim depends, wherein **Lin et al.** also allows the endpoints or start points to be moved to the desired location (col. 2, lines 7-12); thereby adapting the keeping track of the endpoints/start points (i.e., the particular endpoint determination for moving and moving that endpoint of the wire component) as part of the modification of

the circuit as described on page 16 of **Yen et al.**, to allow the wires to be placed at the

desired position/location.

As per **claims 3-5,17-19**, all of the elements of claims 1,16 are discussed in the

rejection of claims 1,16, from which the respective claims depend, wherein **Yen et al.**

further disclose the palette of choices being provided to the user for choosing, the

particular components being available for selection and modification (i.e., adjustments)

are also illustrated in Fig. 3 (see also page 16).

As per **claim 6**, all of the elements of claim 1 are discussed in the rejection of

claim 1, from which the claim depends, wherein **Yen et al.** further disclose the scaling of

the schematic to provide a different level of detail is also shown in Figs. 4 and 5 as part

of the zooming icon (i.e., magnifying icon located on the tool bar of the web-browser).

As per **claim 7**, all of the elements of claim 1 are discussed in the rejection of

claim 1, from which the claim depends, wherein **Yen et al.** further disclose the panning

and scanning is also part of the graphical user interface (see pages 16-17) which allows

for motion sequence windows, editing window and user interactive animated simulation

window to be panned and scanned (i.e., observed and analyze).

As per **claims 9-10,20-21**, all of the elements of claim 1,16 are discussed in the

rejection of claims 1,16, from which the respective claims depend, wherein **Yen et al.**

further disclose the netlist generation and component connectivity list generation are

part of the PLC codes being generated as further described on page 17, last section to

page 18.

As per **claim 11**, all of the elements of the claims are discussed in the rejection

of claims 1,16 and 2 above, wherein since the method/system of **Yen et al.** is a

computer-implemented web-based method/system, the modulated data signal

embodied in a carrier wave and representing computer executable instructions are

included as part of the computer web-based method/system being necessary to carry

out the computer-implemented web-based method/system.

As per **claims 12-14**, all of the elements of the claim 11 are discussed in the

rejection of claim 11 above, wherein the further limitations of the claims are discussed in

the rejections of claims 3-5 above.

As per **claim 15**, all of the elements of the claim 11 are discussed in the rejection

of claim 11 above, wherein the further limitation of the claim are discussed in the

rejection of claims 9-10 above.

6.   **Claim 8** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Yen et**

al. ("A Web-Based, Collaborative, Computer-Aided Sequential Control Design Tool",

IEEE Control Systems Magazine, Vol. 23, No. 2, April 2003, pp. 14-19) in view of **Lin et**

al. (U.S. Patent No. 6,980,211), **Jakatda et al.** (US Patent Application Publication No.

2003/0163295) and **Schmidt et al.** (US Patent No. 6,904,571).

As per **claim 8**, **Yen et al.** in view of **Lin et al.** and **Jakatda et al.** disclose all of

the elements of claim 4, from which the claim depends, as discussed in the rejection of

claim 4 above, including the means for keeping track of the location of the circuit

components (see Fig. 2-3, with the row and col. numbers associated with the insertion

of the circuit components). However, **Yen et al.** in view of **Lin et al.** and **Jakatda et al.**

failed to specifically teach providing the grid to aid placement of the component within

the schematic. **Schmidt et al.** teach the providing the grid to help user (i.e., engineer)

interactive placement of the circuit as part of the schematic editor being implemented in

the networking environment (i.e., the internet) (col. 4, line 61 to col. 5, line 3; col. 12,

lines 46-65). It would have been obvious to one of ordinary skilled in the art at the time

of the invention to further incorporate providing the grid as taught by **Schmidt et al.** into

the system/method of **Yen et al.** in view of **Lin et al.** and **Jakatda et al.** because such

incorporation would make it easier for the user to place the desired circuit at the desired

location as taught by **Schmidt et al.** for which the system/method of **Yen et al.** in view

of **Lin et al.** and **Jakatda et al.** have the means to support, while benefiting from the

combined teachings of **Yen et al.** in view of **Lin et al.** and **Jakatda et al.**.

Remarks

7.   The rejections of **claims 11-15** are rejected under 35 U.S.C. 101 are withdrawn

in light of Applicant's amendment filed on 12/22/2006 which places the claims in

statutory category of invention.

8.   The objections of **claim 1-22** are objected due to the noted informalities are

withdrawn in light of Applicant's amendment filed on 12/22/2006, which corrected the

informalities.

9.   The rejections of **claims 1-7,9-22** are rejected under 35 U.S.C. 102(a) as being

anticipated by **Yen et al.** ("A Web-Based, Collaborative, Computer-Aided Sequential

Control Design Tool", IEEE Control Systems Magazine, Vol. 23, No. 2, April 2003, pp.

14-19) in view of **Lin et al.** (U.S. Patent No. 6,980,211) are withdrawn in light of

Applicant's amendment filed on 12/22/2006, wherein as pointed out by Applicant,

neither **Yen et al.** nor **Lin et al.** specifically teaches the electrical and thermal simulation

that are performed on a computer that is different from the client, as now claimed.

However, as given in the new rejection above as being necessitated by Applicant's

amendment, **Jakatda et al.** (US Patent Application Publication No. 2003/0163295) both

electrical and thermal simulations that can be performed on different computers over the

computer network. It would have been further obvious to one of ordinary skilled in the

art at the time of the invention, to further adapt the method/system of **Yen et al.** in view

of **Lin et al.** to perform the simulation (both electrical and thermal simulations) on

different computers (i.e., on a computer that is different from the client) as further taught

by **Jakatdar et al.** because such adaptation would further make better use of resources

available on the computer network or internet as taught by **Jakatdar et al.** and as

intended by **Yen et al.** (i.e., for greater collaboration) while still benefiting electrical and

thermal simulations to ensure that the circuits perform their functions properly.

10.   The rejection of **claim 8** under 35 U.S.C. 103(a) as being unpatentable over **Yen**

et al. ("A Web-Based, Collaborative, Computer-Aided Sequential Control Design Tool",

IEEE Control Systems Magazine, Vol. 23, No. 2, April 2003, pp. 14-19) in view of **Lin et**

al. (U.S. Patent No. 6,980,211) and **Schmidt et al.** (US Patent No. 6,904,571) is

withdrawn in light of Applicant's amendment and arguments filed on 8/10/2006, wherein

as pointed out by Applicant, neither **Yen et al.**, **Lin et al.**, nor **Schmidt et al.** specifically

teaches the electrical and thermal simulation that are performed on a computer that is

different from the client, as now claimed. However, as given in the new rejection above

as being necessitated by Applicant's amendment, **Jakatda et al.** (US Patent Application Publication No. 2003/0163295) teach both electrical and thermal simulations that can be performed on different computers over the computer network. It would have been further obvious to one of ordinary skilled in the art at the time of the invention to combine all of these references for the reasons indicated above.

Conclusion

11.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Therefore, Applicant is requested herein to consider them carefully in response to this Office Action.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

12.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phallaka Kik whose telephone number is 571-272-1895. The examiner can normally be reached on Monday-Friday, 9AM-5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Chiang can be reached on 571-272-7483. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any response to this action should be mailed to:

Commissioner for Patents

P. O. Box 1450

Alexandria, VA 22313-1450

or faxed to:

571-273-8300

Phallaka Kik
Primary Examiner
March 1, 2007